GRADATION FOR GSB
(As per MORT&H 400-1,Grading-II)

Name of Work	:	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	:	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	:	M/s Tejus Consultants
Contractor	:	Nagineni Muniswmynaidu Krishnamurthy.
Date of Testing	:	19.06.2018
Type of Mix	:	GSB
Sample I/D	:	GSB1

Sample Location:	At plant	Date of Sampling:	19.06.2018
		Date of testing:	19.06.2018
Type of material & Purpose:	GSB	Oven Dry Wt.(gms):	10000.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
75	0	0	0.00	100.00	-
53	0	0	0.00	100.00	100.00
26.5	2215	2215	22.15	77.85	70-100
9.5	2639	4854	48.54	51.46	50-80
4.75	891	5745	57.45	42.55	40-65
2.36	1214	6959	69.59	30.41	30-50
0.425	1968	8927	89.27	10.73	10-15
0.075	824	9751	97.51	2.49	<5
Pan	249.0				
Total	10000.0				

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

GRADATION FOR GSB
(As per MORT&H 400-1,Grading-II)

Name of Work	:	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	:	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	:	M/s Tejus Consultants
Contractor	:	Nagineni Muniswmynaidu Krishnamurthy.
Date of Testing	:	19.06.2018
Type of Mix	:	GSB
Sample I/D	:	GSB1

Sample Location:	At plant	**Date of Sampling:**	19.06.2018
		Date of testing:	19.06.2018
Type of material & Purpose:	GSB	**Oven Dry Wt.(gms):**	10000.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
75	0	0	0.00	100.00	-
53	0	0	0.00	100.00	100.00
26.5	2213	2213	22.13	77.87	70-100
9.5	2625	4838	48.38	51.62	50-80
4.75	896	5734	57.34	42.66	40-65
2.36	1214	6948	69.48	30.52	30-50
0.425	1956	8904	89.04	10.96	10-15
0.075	823	9727	97.27	2.73	<5
Pan	273.0				
Total	10000.0				

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Project Division
Yelahanka Zone
Bangalore

Project	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	M/s Tejus Consultants
Contractor	Nagineni Muniswmynaidu Krishnamurthy.

Field Dry Density test by Sand Replacement Method (As per IS 2720 (Part 28))

Date of Testing	**20.06.2018**		
Layer no. or level	GSB layer		
Depth of hole	200mm		
Field density:	1	2	2
Wt. of wet material from hole (Ww) gms.	5201	5217	5232
Wt. of sand+cylinder before pouring (w1) gms.	14000	14000	14000
Wt. of sand+cylinder after pouring (w2) gms.	9650	9648	9652
Wt. of sand in cone (w3) gms.	870	870	870
Wt. of sand in hole (w4)=(w1-w2-w3) gms.	3480	3482	3478
Bulk density of sand (γs)gm/cc	1.32	1.32	1.32
Bulk density of material(i.e. wt. of the wet material) (γb)=(Ww/w4*(γs))gm/cc	1.97	1.98	1.99
Moisture meter reading(moisture content)	10.20	10.30	10.20
Result			
FDD(Wt.of the dry material)=(100γb/100+mc)gm/cc	1.79	1.79	1.80
MDD	1.83	1.83	1.83
OMC	10.30%	10.30%	10.30%
% compaction obtained	98.09	98.25	98.73
% compaction required	98%	98%	98%

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Project	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	M/s Tejus Consultants
Contractor	Nagineni Muniswmynaidu Krishnamurthy.

Field Dry Density test by Sand Replacement Method (As per IS 2720 (Part 28))

Date of Testing	**20.06.2018**		
Layer no. or level	GSB layer		
Depth of hole	200mm		
Field density:	1	2	2
Wt. of wet material from hole (Ww) gms.	5215	5223	5255
Wt. of sand+cylinder before pouring (w1) gms.	14000	14000	14000
Wt. of sand+cylinder after pouring (w2) gms.	9646	9640	9640
Wt. of sand in cone (w3) gms.	870	870	870
Wt. of sand in hole (w4)=(w1-w2-w3) gms.	3484	3490	3490
Bulk density of sand (γs)gm/cc	1.32	1.32	1.32
Bulk density of material(i.e. wt. of the wet material) (γb)=(Ww/w4*(γs))gm/cc	1.98	1.98	1.99
Moisture meter reading(moisture content)	10.30	10.25	10.30
Result			
FDD(Wt.of the dry material)=(100γb/100+mc)gm/cc	1.79	1.79	1.80
MDD	1.83	1.83	1.83
OMC	10.30%	10.30%	10.30%
% compaction obtained	98.15	98.18	98.74
% compaction required	98%	98%	98%

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Bangalore

AGGREGATE IMPACT VALUE
(IS: 2386 Part - 4)

TEJUS

Project	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.		
Client	BRUHAT BANGALORE MAHANAGARA PALIKE		
Consultant	M/s Tejus Consultants		
Contractor	Nagineni Muniswmynaidu Krishnamurthy.		
Proposed Use	WMM	**Date of Sampling**	**23.06.2018**
Sample Location	**At plant**	**Date of Testing**	**23.06.2018**

Sl. No.	Description		Test No. 1	Test No. 2	Test No. 3	Spec Limit (%)
1	Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm)	(Wa)	354.00	350.00	346.00	
2	Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm)	(Wb)	272.00	275.00	274.00	
3	Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm)	(Wc)	82.00	75.00	72.00	
4	Aggregate Impact Value (%)	(Wc/Wa)* 100	23.16	21.43	20.81	
5	Average Aggregate impact value	(%)	21.80			Max - 30 %

Remarks : Satisfactory / Not Satisfactory

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Project Division
Yelahanka Zone
Bangalore

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FLAKINESS AND ELONGATION INDICES (IS 2386, PART 1)

Project	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	M/s Tejus Consultants
Contractor	Nagineni Muniswmynaidu Krishnamurthy.

Type of Material	WMM	**Proposed Use**	WMM
Sample Location	At plant	**Date of Sampling**	23.06.2018
		Date of Testing	23.06.2018

Size of aggregate		Flakiness Index		Elongation Index	
Passing through IS sieve, mm	**Retained on IS sieve, mm**	**Total wt. of aggregate retained on sieves (A) gms.**	**Wt. of aggregate passing from Flakiness gauge (B) gms**	**Wt. of aggregate retained on Flakiness gauge (C) gms**	**Wt. of aggregate retained on Elongation gauge after retained on Flakiness gauge(D)gms**
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	0	0	0	0
31.5	25.0	0	0	0	0
25.0	20.0	0	0	0	0
20.0	16.0	855	76	779	51
16.0	12.5	1200	118	1082	121
12.5	10.0	451	74	377	60
10.0	6.3	500	64	436	37
Total		**3006**	**332**	**2674**	**269**

Note: Minimum 200 Pcs should be taken on each fraction of test

Flakiness Index(%):	11.04	
Elongation Index(%):	10.06	
Combined FI+EL (%)	21.10	

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Yelahanka Zone
Bangalore

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GRADATION FOR WMM
(As per MORT&H 400-11)

Name of Work	:	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	:	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	:	M/s Tejus Consultants
Contractor	:	Nagineni Muniswmynaidu Krishnamurthy.
Date of Testing	:	23.06.2018
Type of Mix	:	WMM
Sample I/D	:	WMM 1

Sample Location:	At plant	**Date of Sampling:**	23.06.2018
Type of material & Purpose:	WMM	**Date of testing:**	23.06.2018
		Oven Dry Wt.(gms):	10000.0

IS Sieve size in mm	Weight retained (gm)	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
53	0	0	0.00	100.00	100.00
45	612	612	6.12	93.88	95-100
22.4	2565	3177	31.77	68.23	60-80
11.2	1682	4859	48.59	51.41	40-60
4.75	1436	6295	62.95	37.05	25-40
2.36	1104	7399	73.99	26.01	15-30
0.6	1652	9051	90.51	9.49	8.0-22.0
0.075	300	9351	93.51	6.49	0-8
Pan	649				
Total	10000				

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AGGREGATE IMPACT VALUE
(IS: 2386 Part - 4)

TEJUS

Project	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.		
Client	BRUHAT BANGALORE MAHANAGARA PALIKE		
Consultant	M/s Tejus Consultants		
Contractor	Nagineni Muniswmynaidu Krishnamurthy		
Proposed Use	WMM	**Date of Sampling**	**25.06.2018**
Sample Location	**At plant**	**Date of Testing**	**25.06.2018**

Sl. No.	Description		Test No. 1	Test No. 2	Test No. 3	Spec Limit (%)
1	Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm)	(Wa)	357.00	345.00	350.00	
2	Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm)	(Wb)	270.00	279.00	275.00	
3	Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm)	(Wc)	87.00	66.00	75.00	
4	Aggregate Impact Value (%)	(Wc/Wa)* 100	24.37	19.13	21.43	
5	Average Aggregate impact value	(%)	21.64			Max - 30 %

Remarks : Satisfactory / Not Satisfactory

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

FLAKINESS AND ELONGATION INDICES (IS 2386, PART 1)

Project	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	M/s Tejus Consultants
Contractor	Nagineni Muniswmynaidu Krishnamurthy.

Type of Material	WMM	**Proposed Use**	WMM
Sample Location	At plant	**Date of Sampling**	25.06.2018
		Date of Testing	25.06.2018

Size of aggregate		Flakiness Index		Elongation Index	
Passing through IS sieve, mm	Retained on IS sieve, mm	Total wt. of aggregate retained on sieves (A) gms.	Wt. of aggregate passing from Flakiness gauge (B) gms	Wt. of aggregate retained on Flakiness gauge (C) gms	Wt. of aggregate retained on Elongation gauge after retained on Flakiness gauge(D)gms
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	0	0	0	0
31.5	25.0	0	0	0	0
25.0	20.0	0	0	0	0
20.0	16.0	852	78	774	50
16.0	12.5	1200	115	1085	124
12.5	10.0	455	80	375	60
10.0	6.3	500	66	434	40
Total		3007	339	2668	274

Note: Minimum 200 Pcs should be taken on each fraction of test

Flakiness Index(%):	11.27
Elongation Index(%):	10.27
Combined FI+EL (%)	21.54

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Yelahanka Zone
Bangalore

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GRADATION FOR WMM
(As per MORT&H 400-11)

Name of Work	:	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	:	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	:	M/s Tejus Consultants
Contractor	:	Nagineni Muniswmynaidu Krishnamurthy.
Date of Testing	:	25.06.2018
Type of Mix	:	WMM
Sample I/D	:	WMM 1

Sample Location:	At plant	**Date of Sampling:**	02.08.2018
Type of material & Purpose:	WMM	**Date of testing:**	25.06.2018
		Oven Dry Wt.(gms):	10000.0

IS Sieve size in mm	Weight retained (gm)	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
53	0	0	0.00	100.00	100.00
45	610	610	6.10	93.90	95-100
22.4	2562	3172	31.72	68.28	60-80
11.2	1680	4852	48.52	51.48	40-60
4.75	1435	6287	62.87	37.13	25-40
2.36	1100	7387	73.87	26.13	15-30
0.6	1650	9037	90.37	9.63	8.0-22.0
0.075	300	9337	93.37	6.63	0-8
Pan	663				
Total	10000				

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Project Division
Yelahanka Zone
Bangalore

Project	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	M/s Tejus Consultants
Contractor	Nagineni Muniswmynaidu Krishnamurthy.

Field Dry Density test by Sand Replacement Method (As per IS 2720 (Part 28)

Date of Testing	25.06.2018
Layer no. or level	WMM I layer
Depth of hole	250mm

Field density:	1	2	3
Wt. of wet material from hole (Ww) gms.	6164	6122	6210
Wt. of sand+cylinder before pouring (w1) gms.	14000	14000	14000
Wt. of sand+cylinder after pouring (w2) gms.	9742	9762	9712
Wt. of sand in cone (w3) gms.	835	835	835
Wt. of sand in hole (w4)=(w1-w2-w3) gms.	3423	3403	3453
Bulk density of sand (γs)gm/cc	1.31	1.31	1.31
Bulk density of material(i.e. wt. of the wet material) (γb)=(Ww/w4*(γs))gm/cc	2.36	2.36	2.36
Moisture meter reading(moisture content)	12.52	12.58	12.60
Result			
FDD(Wt.of the dry material)=(100γb/100+mc)gm/cc	2.10	2.09	2.09
MDD	2.13	2.13	2.13
OMC	12.60%	12.60%	12.60%
% of Compaction Obtained	98.43	98.28	98.23
Compaction Required	98%	98%	98%

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Project Division
Yelahanka Zone
Bangalore

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Project	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	M/s Tejus Consultants
Contractor	Nagineni Muniswmynaidu Krishnamurthy.

Field Dry Density test by Sand Replacement Method (As per IS 2720 (Part 28)

Date of Testing	26.06.2018
Layer no. or level	WMM I layer
Depth of hole	250mm

	1	2	3
Field density:			
Wt. of wet material from hole (Ww) gms.	6158	6120	6210
Wt. of sand+cylinder before pouring (w1) gms.	14000	14000	14000
Wt. of sand+cylinder after pouring (w2) gms.	9735	9775	9716
Wt. of sand in cone (w3) gms.	835	835	835
Wt. of sand in hole (w4)=(w1-w2-w3) gms.	3430	3390	3449
Bulk density of sand (γs)gm/cc	1.31	1.31	1.31
Bulk density of material(i.e. wt. of the wet material) (γb)=(Ww/w4*(γs))gm/cc	2.35	2.36	2.36
Moisture meter reading(moisture content)	12.50	12.60	12.62
Result			
FDD(Wt.of the dry material)=(100γb/100+mc)gm/cc	2.09	2.10	2.09
MDD	2.13	2.13	2.13
OMC	12.60%	12.60%	12.60%
% of Compaction Obtained	98.15	98.61	98.33
Compaction Required	98%	98%	98%

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Project Division
Yelahanka Zone
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TEJUS CONSULTANTS

+91 80 23287532, tejusconsultants@gmail.com

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GRADATION FOR WMM
(As per MORT&H 400-11)

Name of Work	:	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	:	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	:	M/s Tejus Consultants
Contractor	:	Nagineni Muniswmynaidu Krishnamurthy.
Date of Testing	:	24.06.18
Type of Mix	:	WMM
Sample I/D	:	WMM 1

Sample Location:	At plant	**Date of Sampling:**	24.06.18
Type of material & Purpose:	WMM	**Date of testing:**	24.06.18
		Oven Dry Wt.(gms):	10000.0

IS Sieve size in mm	Weight retained (gm)	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
53	0	0	0.00	100.00	100.00
45	617	617	6.17	93.83	95-100
22.4	2526	3143	31.43	68.57	60-80
11.2	1786	4929	49.29	50.71	40-60
4.75	1459	6388	63.88	36.12	25-40
2.36	1355	7743	77.43	22.57	15-30
0.6	869	8612	86.12	13.88	8.0-22.0
0.075	842	9454	94.54	5.46	0-8
Pan	546				
Total	10000				

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GRADATION FOR WMM
(As per MORT&H 400-11)

Name of Work	:	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parlel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	:	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	:	M/s Tejus Consultants
Contractor	:	Nagineni Muniswmynaidu Krishnamurthy.
Date of Testing	:	24.06.18
Type of Mix	:	WMM
Sample I/D	:	WMM 1

Sample Location:	At plant	**Date of Sampling:**	24.06.18
Type of material & Purpose:	WMM	**Date of testing:**	24.06.18
		Oven Dry Wt.(gms):	10000.0

IS Sieve size in mm	Weight retained (gm)	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
53	0	0	0.00	100.00	100.00
45	619	619	6.19	93.81	95-100
22.4	2563	3182	31.82	68.18	60-80
11.2	2789	5971	59.71	40.29	40-60
4.75	1436	7407	74.07	25.93	25-40
2.36	1361	8768	87.68	12.32	15-30
0.6	420	9188	91.88	8.12	8.0-22.0
0.075	200	9388	93.88	6.12	0-8
Pan	612				
Total	10000				

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AGGREGATE IMPACT VALUE
(IS: 2386 Part - 4)

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Client	BRUHAT BANGALORE MAHANAGARA PALIKE		
Consultant	M/s Tejus Consultants		
Contractor	Nagineni Muniswmynaidu Krishnamurthy.		
Proposed Use	WMM	**Date of Sampling**	**24.06.18**
Sample Location	**At plant**	**Date of Testing**	**24.06.18**

Sl. No.	Description		Test No. 1	Test No. 2	Test No. 3	Spec Limit (%)
1	Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm)	(Wa)	358.00	348.00	350.00	
2	Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm)	(Wb)	271.00	276.00	275.00	
3	Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm)	(Wc)	87.00	72.00	75.00	
4	Aggregate Impact Value (%)	(Wc/Wa)* 100	24.30	20.69	21.43	
5	Average Aggregate impact value	(%)	22.14			Max - 30 %

Remarks : Satisfactory / Not Satisfactory

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